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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Fissan et al.

Serial No.: 10/052,892 Examiner: Not yet assigned

Filed: January 17, 2002 Group Art Unit: 2856

Title: GAS PARTICLE PARTITIONER Confirmation No.: 9090

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on March 26, 2002

Jeff Rothenberg
Attorney for Applicant
Reg. No. 26,429

Date of Signature: March 26, 2002

Commissioner for Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Dear Sir:

In the above-identified application, kindly amend the specification as follows.

Replace existing paragraphs [0030] and [0031] with the following:

[0030] From inlet 12, aerosol 28 enters an aerosol charging zone 30 in the annular space between permeable grid electrode 24 and outer wall 20. An axially extending corona wire 32 within cylindrically shaped permeable grid electrode 24 produces a corona discharge area 34 about wire 32, when a voltage U_{Cor} is applied to the wire. Corona wire 32, made of electrically conducting material, advantageously silver, serves as a controlled corona discharger for unipolar

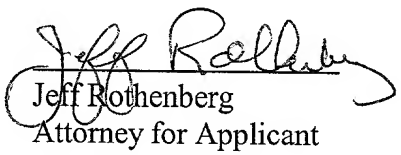
charging of particles in aerosol 28. The corona discharger produces high concentrations of ions which are transported through openings in permeable grid electrode 24 to interact with and electrically charge aerosol particles in aerosol charging zone 30.

[0031] A voltage U_1 is applied from a voltage supply to permeable grid electrode 24 to produce an electric field. Ions produced by the corona discharge from wire 32 are transported through openings in electrode 24 due to this electric field. The ion production is, preferably, monitored and can be controlled by measuring the ionic current with a measuring electrode 36 (e.g. of aluminum foil), a shielded connector 38 and a current meter 40. Computer or other control means, responsive the measurements of ionic current by meter 40, can be advantageously employed to control ion production by the corona discharger.

REMARKS

Entry of this amendment is respectfully requested. The amendment ensures consistent use of reference number 24 in the specification. A marked-up version of the substitute paragraphs showing the revisions is attached.

Respectfully submitted,



Jeff Rothenberg
Attorney for Applicant
Reg. No. 26,429

Dated: March 26, 2002

HESLIN ROTHENBERG FARLEY & MESITI P.C.
5 Columbia Circle
Albany, New York 12203
Tel: (518) 452-5600
Fax: (518) 452-5579
e-mail: JR@hrfmlaw.com

VERSION WITH MARKINGS TO SHOW CHANGES MADE

[0030] From inlet 12, aerosol 28 enters an aerosol charging zone 30 in the annular space between permeable grid electrode [14] 24 and outer wall 20. An axially extending corona wire 32 within cylindrically shaped permeable grid electrode 24 produces a corona discharge area 34 about wire 32, when a voltage U_{Cor} is applied to the wire. Corona wire 32, made of electrically conducting material, advantageously silver, serves as a controlled corona discharger for unipolar charging of particles in aerosol 28. The corona discharger produces high concentrations of ions which are transported through openings in permeable grid electrode [14] 24 to interact with and electrically charge aerosol particles in aerosol charging zone 30.

[0031] A voltage U_1 is applied from a voltage supply to permeable grid electrode [14] 24 to produce an electric field. Ions produced by the corona discharge from wire 32 are transported through openings in electrode 24 due to this electric field. The ion production is, preferably, monitored and can be controlled by measuring the ionic current with a measuring electrode 36 (e.g. of aluminum foil), a shielded connector 38 and a current meter 40. Computer or other control means, responsive the measurements of ionic current by meter 40, can be advantageously employed to control ion production by the corona discharger.